



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/552,484

10/06/2005

Chan Ho Kyung

2101-3085

2358

35884

7590

06/10/2010

LEE, HONG, DEGERMAN, KANG & WAIMEY

660 S. FIGUEROA STREET

Suite 2300

LOS ANGELES, CA 90017

EXAMINER

BALAOING, ARIEL A

ART UNIT

PAPER NUMBER

2617

NOTIFICATION DATE

DELIVERY MODE

06/10/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspto@hlaw.com

ip.hlaw@gmail.com

ip.hlaw@live.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/552,484	<b>Applicant(s)</b> KYUNG ET AL.	
	<b>Examiner</b> ARIEL BALAOING	<b>Art Unit</b> 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 February 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 42-47, 50-79 and 81-90 is/are pending in the application.
- 4a) Of the above claim(s) 59-78 and 81-86 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 42-47, 50-58, 79 and 87-90 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/06/2005 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>05/13/2010</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 42-47, 52-58, 79, 89, 90 are rejected under 35 U.S.C. 103(a) as being unpatentable over NEEDHAM et al (US 6,188,767) in view of LALWANEY (US 2004/0037237) and further in view of 3GPP2 "Upper Layer (Layer 3) Signaling for cdma2000 Spread Spectrum Systems" 3GPP2 C.S0005-d version 1.0 (see IDS submission 04/27/2009, hereinafter 3GPP2).

Regarding claim 42, NEEDHAM discloses a method of receiving a broadcast/multicast service [**group call**] via a plurality of forward broadcast supplemental channels [**forward links**] of a mobile communication system (abstract), the method comprising: receiving a flow identifier [**talk group identifier**] indicative of the broadcast/multicast service (Figure 6; col. 4, line 44-47; group call request); generating a public long code mask, comprising the received flow identifier (Figures 3 and 4; col. 3, line 55-67; col. 4, line 57-col. 5, line 5; long code mask based on talkgroup identifier used to determine long code), and a specific header **401** (col. 3, line 64-67); wherein the specific header is allocated to a most significant bit portion of the public long code mask (Figure 4; col. 3, line 64-col. 4, line 10; header is located in **401** flow

identifiers are located in **402**). However, NEEDHAM does not expressly disclose wherein a specific header having a value that does not coincide with previous public long code masks and does not coincide with previous long code masks. In the same field of endeavor, LALWANEY discloses a specific header having a value that does not coincide with previous public long code masks and does not coincide with previous long code masks (paragraph 43, 44; header includes field for specific mapping to long code masks). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify NEEDHAM to include the teachings of LALWANEY, LALWANEY states that since such a modification would provide specific address mapping to specified multicast groups of specific long code masks. However, the combination of NEEDHAM and LALWANEY does not expressly disclose generating a public long code mask, comprising the received flow identifier **and a predetermined portion of a channel identifier for identifying a corresponding forward broadcast supplemental channel among the plurality of forward broadcast supplemental channels**; and wherein the channel identifier and the flow identifier are allocated from a least significant bit to a more significant bit, in a portion of the public long code mask to which the specific header is not allocated. In the same field of endeavor, 3GPP2 generating a public long code mask, comprising a flow identifier and a predetermined portion of a channel identifier for identifying a corresponding forward broadcast supplemental channel among the plurality of forward broadcast supplemental channels (page 2-669, lines 17-27; page 2-670 – Figure 2.6.13.11-1); and wherein the channel identifier and the flow identifier are allocated from a least significant bit to a more

significant bit, in a portion of the public long code mask to which the specific header is not allocated (page 2-669, lines 17-27). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of NEEDHAM and LALWANEY to include the teachings of 3GPP2, since specific allocations of a public long code mask and flow identifier within most significant bits and least significant bits using standardized protocol would allow a system to function within known specifications.

Regarding claim 43, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. NEEDHAM further discloses wherein the generated public long code mask has a length of 42 bits (Figure 4).

Regarding claim 44, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of NEEDHAM, LALWANEY, and 3GPP2 further discloses wherein the flow identifier has a length of 32 bits (3GPP2 – page 2-670, line 8).

Regarding claim 45, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of NEEDHAM, LALWANEY, and 3GPP2 further discloses wherein the channel identifier includes a maximum of seven bits (3GPP2 – Figure 2.6.13.11-1). Furthermore, It would have been an obvious matter of design choice to provide a channel identifier of 7 bits or less, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Regarding claim 46, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of NEEDHAM, LALWANEY, and 3GPP2 further discloses wherein the predetermined portion is the four least significant bits of the channel identifier (3GPP2 – Figure 2.6.13.11-1). Furthermore, It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the channel identifier at the four least significant bits, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Regarding claim 47, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of NEEDHAM, LALWANEY, and 3GPP2 further discloses wherein the predetermined portion is the three least significant bits of the channel identifier (3GPP2 – Figure 2.6.13.11-1). Furthermore, It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the channel identifier at the four least significant bits, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Regarding claim 52, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of NEEDHAM, LALWANEY, and 3GPP2 further discloses wherein the specific header has a length of seven bits, corresponding to a value (3GPP2 pages 2-10 – 2-11). Although the combination of NEEDHAM, LALWANEY, and 3GPP2 does not expressly detail selection of a specific value, it would have been an obvious matter of design choice to use any header number

Art Unit: 2617

to indicate characteristics of a the public long code mask since the applicant has not disclosed that a specific header used to indicate a characteristic of the public long code mask solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a header of any chosen value.

Regarding claim 53, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of NEEDHAM, LALWANEY, and 3GPP2 further discloses wherein the specific header has a length of six bits, corresponding to a value (3GPP2 pages 2-10 – 2-11). Although the combination of PANCHAL, JANG, and 3GPP2 does not expressly detail selection of a specific value, it would have been an obvious matter of design choice to use any header number to indicate characteristics of a the public long code mask since the applicant has not disclosed that a specific header used to indicate a characteristic of the public long code mask solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a header of any chosen value.

Regarding claim 54, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of NEEDHAM, LALWANEY, and 3GPP2 further discloses wherein the specific header has a length of seven bits, corresponding to a value (3GPP2 pages 2-10 – 2-11). Although the combination of NEEDHAM, LALWANEY, and 3GPP2 does not expressly detail selection of a specific value, it would have been an obvious matter of design choice to use any header number to indicate characteristics of a the public long code mask since the applicant has not disclosed that a specific header used to indicate a characteristic of the public long code

mask solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a header of any chosen value.

Regarding claim 55, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of NEEDHAM, LALWANEY, and 3GPP2 further discloses wherein if the flow identifier has a length less than 32 bits, the flow identifier is padded from a most significant bit adjacent the header (3GPP2 - page 2-670, line 6-8; Figure 2.6.13.11-1).

Regarding claim 56, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of NEEDHAM, LALWANEY, and 3GPP2 further discloses wherein, if the flow identifier and the header have lengths of 16 bits and 7 bits, respectively, the flow identifier is padded with twelve bits from the most significant bit adjacent the header (3GPP2 - page 2-670, line 6-8; Figure 2.6.13.11-1).

Regarding claim 57, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of NEEDHAM, LALWANEY, and 3GPP2 further discloses wherein, if the flow identifier and the header have lengths of 24 bits and 7 bits, respectively, the flow identifier is padded with 4 bits from the most significant bit adjacent the header (3GPP2 - page 2-670, line 6-8; Figure 2.6.13.11-1).

Regarding claim 58, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of NEEDHAM, LALWANEY, and 3GPP2 further discloses wherein, if the flow identifier and the header have lengths of 32 bits and 3 bits, respectively, the flow identifier is not padded (3GPP2 - page 2-670, line 6-8; Figure 2.6.13.11-1).



Regarding claim 79, NEEDHAM discloses a mobile terminal (abstract) comprising: a first module configured to receive and store a flow identifier [**talk group identifier**] for a broadcast/multicast service (Figure 6; col. 4, line 44-47; group call request); and a second module for generating a public long code mask, comprising the received flow identifier (Figures 3 and 4; col. 3, line 55-67; col. 4, line 57-col. 5, line 5; long code mask based on talkgroup identifier used to determine long code), and a specific header **401** (col. 3, line 64-67); wherein the specific header is allocated to a most significant bit portion of the public long code mask (Figure 4; col. 3, line 64-col. 4, line 10; header is located in **401** flow identifiers are located in **402**). However, NEEDHAM does not expressly disclose wherein a specific header having a value that does not coincide with previous public long code masks and does not coincide with previous long code masks. In the same field of endeavor, LALWANEY discloses a specific header having a value that does not coincide with previous public long code masks and does not coincide with previous long code masks (paragraph 43, 44; header includes field for specific mapping to long code masks). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify NEEDHAM to include the teachings of LALWANEY, LALWANEY states that since such a modification would provide specific address mapping to specified multicast groups of specific long code masks. However, the combination of NEEDHAM and LALWANEY does not expressly disclose generating a public long code mask, comprising the received flow identifier and a predetermined portion of a channel identifier for identifying a corresponding forward broadcast supplemental

**channel among the plurality of forward broadcast supplemental channels**; and wherein the channel identifier and the flow identifier are allocated from a least significant bit to a more significant bit, in a portion of the public long code mask to which the specific header is not allocated. In the same field of endeavor, 3GPP2 generating a public long code mask, comprising a flow identifier and a predetermined portion of a channel identifier for identifying a corresponding forward broadcast supplemental channel among the plurality of forward broadcast supplemental channels (page 2-669, lines 17-27; page 2-670 – Figure 2.6.13.11-1); and wherein the channel identifier and the flow identifier are allocated from a least significant bit to a more significant bit, in a portion of the public long code mask to which the specific header is not allocated (page 2-669, lines 17-27). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of NEEDHAM and LALWANEY to include the teachings of 3GPP2, since specific allocations of a public long code mask and flow identifier within most significant bits and least significant bits using standardized protocol would allow a system to function within known specifications.

Regarding claim 89, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of NEEDHAM, LALWANEY, and 3GPP2 further discloses wherein the specific header has a length of seven bits, corresponding to a value (3GPP2 pages 2-10 – 2-11). Although the combination of NEEDHAM, LALWANEY, and 3GPP2 does not expressly detail selection of a specific value, it would have been an obvious matter of design choice to use any header number

to indicate characteristics of a the public long code mask since the applicant has not disclosed that a specific header used to indicate a characteristic of the public long code mask solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a header of any chosen value.

Regarding claim 90, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of NEEDHAM, LALWANEY, and 3GPP2 further discloses wherein the specific header has a length of six bits, corresponding to a value (3GPP2 pages 2-10 – 2-11). Although the combination of PANCHAL, JANG, and 3GPP2 does not expressly detail selection of a specific value, it would have been an obvious matter of design choice to use any header number to indicate characteristics of a the public long code mask since the applicant has not disclosed that a specific header used to indicate a characteristic of the public long code mask solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a header of any chosen value.

1. Claims 50, 51, 87, and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over NEEDHAM et al (US 6,188,767) in view of LALWANEY (US 2004/0037237) and in view of 3GPP2 "Upper Layer (Layer 3) Signaling for cdma2000 Spread Spectrum Systems" 3GPP2 C.S0005-d version 1.0 (see IDS submission 04/27/2009, hereinafter 3GPP2) and further in view of BORDER (US 2002/0016851 A1).

Regarding claim 50, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of NEEDHAM,

Art Unit: 2617

LALWANEY, and 3GPP2 does not expressly disclose wherein a length of the header is variable according to a length of the channel identifier. BORDER discloses wherein a length of a header is variable according to a length of an identifier (abstract; paragraph 141, 144; header is sizable based on payload size). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of NEEDHAM, LALWANEY, and 3GPP2 to include the teachings of BORDER, since such a modification would allow unallocated bits to be used based on a determination of the remaining bits needed.

Regarding claim 51, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of NEEDHAM, LALWANEY, 3GPP2, and BORDER does not expressly disclose wherein, if the predetermined portion of the channel identifier is less than  $n$  bits, where  $n < 7$ , the header has a length of  $10 - n$  bits. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a header based on a variable, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 87, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of NEEDHAM, LALWANEY, and 3GPP2 does not expressly disclose wherein a length of the header is variable according to a length of the channel identifier. BORDER discloses wherein a length of a header is variable according to a length of an identifier (abstract; paragraph 141, 144; header is sizable based on payload size). Therefore it would have been

Art Unit: 2617

obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of NEEDHAM, LALWANEY, and 3GPP2 to include the teachings of BORDER, since such a modification would allow unallocated bits to be used based on a determination of the remaining bits needed.

Regarding claim 88, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of NEEDHAM, LALWANEY, 3GPP2, and BORDER does not expressly disclose wherein, if the predetermined portion of the channel identifier is less than  $n$  bits, where  $n < 7$ , the header has a length of  $10 - n$  bits. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a header based on a variable, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

PATEL (US 2004/0213280) – Generating a code mask for coding transmission over a traffic channel

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ARIEL BALAOING whose telephone number is (571)272-7317. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, V. Paul Harper can be reached on (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VINCENT P. HARPER/  
Supervisory Patent Examiner, Art Unit 2617

/Ariel Balaoing/  
Examiner, Art Unit 2617

/A. B./  
Examiner, Art Unit 2617